

Supplementary Table 7.1. Selected fossil occurrences of Monocots

clade	taxon	organ	source	minimum age estimate (Mya)	reference
Monocot	<i>Liliacidites</i> sp.	pollen	Early Cretaceous (Aptian) Patuxent Fm., Virginia		Doyle et al. 2008
Alismataceae	<i>Caldesia brandoniana</i>	seed	Early Miocene Brandon Lignite, Vermont	20	Haggard and Tiffney 1997
Aponogetonaceae stem node	<i>Aponogeton harryi</i>	pollen	Late Cretaceous (Early Campanian) Eagle Fm, Wyoming	81	Grímsson et al. 2014
Araceae	<i>Mayoa portugallica</i>	striate inaperaturate pollen	Early Cretaceous (Late Barremian--Early Aptian) Portugal	126	Friis et al. 2004
Araceae subfamily Aroideae	<i>Montrichardia aquatica</i>	leaf	Paleocene Cerrejón Fm., Colombia	56	Herrera et al 2008
Araceae	<i>Nitophyllites zaisanicus</i>	leaf	Paleocene Tayzhuzgen Fm, Zaysan Basin, Kazakhstan	56	Wilde et al. 2005
Subfamily Lasioideae	<i>Keratosperma allenbyense</i>	fruits and seeds	Eocene Princeton Chert, British Columbia	49	Smith and Stockey 2003
Stem node of Lemnoideae (araceae)	<i>Limnobiophyllum scutatum</i>	leaves and attached flowers	Paleocene Paskapoo Fm, Alberta, Canada	58	Stockey et al. 1997
Hydrocharitaceae	<i>Stratiotes</i> sp.	seeds	Paleocene Felpham Lignite Bed, Reading Fm, Felpham, West Sussex, UK	56	Collinson et al. 2003
Arecaceae subfamily Arecoideae	<i>Tripyllocarpa aestuaria</i>	fruits	Paleocene Salamanca Fm ,Las Violetas, Patagonia, Argentina	58	Gandolfo and Futey 2012
Arecaceae Coryphoideae	<i>Sabal bigbendense</i> and <i>Sabal bracknellense</i>	seeds	Late Cretaceous (Campanian) Aguja Fm, Texas	75	Manchester et al. 2010
Dioscoreaceae	<i>Dioscorea wilkinii</i>	leaves	Oligocene Chilga flora, Ethiopia	27	Pan et al. 2014
Liliales: Alstroemeriaceae	<i>Luzuriaga peterbannisteri</i>	leaves and possibly floral remains	Early Miocene Foulden Maar	20	Conran et al. 2014

			South Island, New Zealand		
Cyclanthaceae	<i>Cyclanthus messelensis</i>	fruits and seeds	Middle Eocene Messel Germany	47	Smith et al. 2008
Cyperaceae	<i>Volkeria messelensis</i>	infructescences	Middle Eocene Messel Germany	47	Smith et al. 2009
Poaceae subfamily Ehrhartoideae	<i>Changii indicum</i>	epidermis and phytoliths	Late Cretaceous (Maastrichtian) Lameta Fm, Deccan Traps, Pisdura, India	66	Prasad et al. 2011
Typhaceae	<i>Typha</i> sp.	inflorescence	Early Eocene Fossil Butte Mb, Green River Fm, Wyoming	48	Grande 1984
Zingiberaceae	<i>Spirematospermum chandlerae</i>	seed	Late Cretaceous (Early Campanian) Neuse River, North Carolina	82	Friis 1988
Musaceae	<i>Ensete oregonensis</i>	seed	Eocene Clarno Fm, Oregon	46	Manchester and Kress 1993